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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,426	11/29/2001	Tyler Thorp	03226/136001; P6821	6431

22511 7590 03/03/2003

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EXAMINER
THOMPSON, ANNETTE M

ART UNIT	PAPER NUMBER
2825	

DATE MAILED: 03/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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THOMPSON, ANNETTE M

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DATE MAILED: 02/13/2003

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Office Action Summary	Application No.	Applicant(s)	
	09/997,426	THORP ET AL.	
	Examiner	Art Unit	
	A. M. Thompson	2825	

-- The MAILING DATE of this communication appears on th cover sheet with the correspondence addr ss --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 29 November 2001 .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-14 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 29 November 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

This application, 09/997,426, has been examined. Claims 1-14 are pending.

Claim Objections

1. Claims 1-14 are objected to. Pursuant to claims 1-14, the numbering of claims is not in accordance with 37 CFR 1.75 (f) which requires that the claims be numbered consecutively in Arabic numerals. Pursuant to claim 11, at line 3, "connect" should be --connects--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Rejection of claims 1-14

2. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Camporese et al., U.S. Patent 6,311,313. Camporese discloses an X-Y grid tree clock distribution network for distributing a clock signal across a VLSI chip.

3. Pursuant to claim 1 which recites [a]n integrated circuit comprising a clock driver disposed on the integrated circuit (Fig. 2, #202); a clock grid disposed on the integrated circuit (Fig. 2); and at least one interconnect connecting an output of the clock driver to

the clock grid at a connection point (Fig. 2, #222), wherein the connection points resides at a non-peripheral region of the clock grid (see Fig. 2).

4. Pursuant to claim 2, wherein the interconnection point is positioned such that a component operatively connected to the clock grid at the connection point receives a signal from the clock driver at the connection point, where the signal at the connection point has less skew than if the connection point was positioned at a peripheral region of the clock grid (Figure 7 illustrates this limitation)

5. Pursuant to claim 3, wherein the at least one interconnect is arranged in a wire tree configuration (see Figure 8).

6. Pursuant to claim 4, wherein the wire tree configuration is balanced (Cols. 1 and 2).

7. Pursuant to claim 5 which recites an integrated circuit having a clock grid (Fig. 2); at least one clock driver that provides a clock signal to the clock grid (Fig. 2, #202); and a transmission structure operatively connecting an output of the at least one clock driver to at least one point on the clock grid (col. 1 and 2), wherein the at least one point resides at a non-exterior region of the clock grid.

8. Pursuant to claim 6, it addresses the limitations already rejected in claim 2, and therefore claim 6 is likewise rejected based on the same reasoning.

9. Pursuant to claim 7, wherein the transmission structure has a wire tree configuration (see col. 1 and col. 2).

10. Pursuant to claim 8, wherein the wire tree configuration is balanced (reference cols. 1 and 2).

11. Pursuant to claim 9 which recites a method for reducing clock skew comprising sending a clock signal from a clock driver to a first component through a connection point on a clock grid; and sending the clock signal from the clock driver to a second component through the connection point, wherein the connection point is at a non-peripheral region of the clock grid (Figs. 3, 4, and 5 illustrate this limitation).

12. Pursuant to claim 10, wherein the clock signal received by the first component and the second component has less skew than if the connection point was at a peripheral region of the clock grid (see method of Fig. 7).

13. Pursuant to claim 11, wherein sending the clock signal from the clock driver to the first component and the second component occurs through a transmission structure, wherein the transmission structure comprises interconnect that connects the clock driver to the connection point on the clock grid (Figs. 3-5 illustrate this limitation).

14. Pursuant to claim 12, wherein the transmission structure is balanced (cols. 1 and 2).

15. Pursuant to claims 13 which recites a transmission structure for driving a signal onto a clock grid, comprising an interconnect connecting a clock driver to the clock grid, wherein the interconnect connects the clock driver to the clock grid at a connection point residing at a non-exterior region of the clock grid (See Figs. 5, 6, 8, and 9).

16. Pursuant to claim 14, wherein the transmission structure is balanced (col. 1 and 2).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please reference the PTO-892 for a complete listing.

18. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to A.M. Thompson whose telephone number is (703) 305-7441. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 5:00 p.m.. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew S. Smith, can be reached on (703) 308-1323.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956 or the Customer Service Center whose telephone number is (703)306-3329.

19. Responses to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9318, (for **OFFICIAL** communications intended for entry)
(703)872-9319, (for Official **AFTER-FINAL** communications)

Hand-delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

A. M. THOMPSON
Patent Examiner

10 February 2003